Demo model deployment on Flask

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Purpose: Deploy a toy model in Cloud with Heroku

Project Structure (Named api-cloud-mfofana)

This project has five parts:

model.py — This contains code for the machine learning model to predict breast cancer based on input data

app.py — This contains Flask APIs that receives input data details through GUI or API calls, computes the predicted value based on our model and returns it.

HTML/CSS — This contains the HTML template and CSS styling to allow user to enter input data detail and displays the predicted result.

Procfile —   Which contains instructions to run application in a web server

Requirements.txt —   Which contains library to be installed

Step1: Procfile file creation

Before deployment, we need first to create a Procfile which contains instructions to run application in a web server

```
web: gunicorn app:app
```

Step2: Account and application creation in Heroku

You need to connect to Heroku site and create successively:

- your account
- your application

For this example, our application is named: `api-cloud-mfofana`

Step 3: Application deployment

Install the Heroku CLI

Open a command prompt windows and:

log in to your Heroku account

```
$ heroku login
```

Create a new Git repository

Initialize a git repository in a new or existing directory.

```
$ cd my-project/
$ git init
$ heroku git:remote -a api-cloud-mfofana
```

Deploy your application

Commit your code to the repository and deploy it to Heroku using Git.

```
$ git add .
$ git commit -am "First commit "
$ git push heroku master
```

Step 4: Demo

After deployment enter:

```
Heroku open
```

To open the application : https://api-cloud-mfofana.herokuapp.com/